REMARKS

Claims 1 – 27 are pending in the application. Claims 1-3, 6, 18-20, 22-23 and 25-27 have now been amended. Claims 28 – 35 are added.

Favorable reconsideration of this rejection in view of the above amendments and the following explanations is respectfully requested.

Interview

Applicants thank Examiner Hoang and Examiner Chrales for the very helpful interview granted to applicants' representative Dr. Paul Fenster and inventor Rymon on January 9, 2008. The following amendments and remarks outline the arguments made during the interview. Applicants' representative explained the difference between the claimed invention and the Examiners indicated (on the interview summary) that the art was overcome by the amendments presented for discussion. The Examiners pointed out some potential problems with the wording of the amended and new claims, which applicants have corrected in the present amendment.

Claim Rejections – 35 U.S.C. § 102

Claims 1-12, 17-19, and 25-27 are rejected under 35 U.S.C. 102(e) as being unpatentable over **Fisher, US publication No. 2002/0013847.**

Claims 20, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fisher** in view of **Brown, US patent No. 5,941,947.** Claim 21 is rejected in view of the above and further in view of **Shandony US Patent No 6,675,261.**

The citation to Fisher cited to teach efficient use of resources by groups of users. The resources may be pooled and individual users may manage the resources.

As explained previously, Fisher is all about real time management of resources. Who should the resource be given to now in order to maximize communication, is the issue that Fisher deals with. In other words Fisher deals with *actual assignment* of resources. The pools are defined in advance in terms of the resources. The users, who are placed in the pools in (see paragraphs 56 – 60) are placed there in accordance with *a predetermined definition of a pool criterion based on attributes or resources.* They are

not searched for or discovered, rather they are simply placed in the group as the resource is assigned or according to assignment of a particular resource or attribute. Thus, for example any user having a particular area code for his phone number is automatically grouped into the pool for that area. That is to say the pool is defined and then the users with the right criteria are placed in them automatically. No search as defined by the claims is ever carried out. At most a search is performed per user to determine which is the pool in which the user should be placed.

Claim 1 as amended requires inter alia:

"a discovery unit associated with said input and operable via said processor, configured for automatically searching for patterns within said links between said users and said resources".

Fisher fails to search for patterns within links and merely assigns all users having a certain common resource or attribute to a predefined pool".

Claim 1 further defines

"a grouping unit, associated with said discovery unit, configured to use said discovered patterns to form at least one group from said set of users or said set of resources using said automatically discovered patterns, such that users or resources having a subset of at least two links to common resources or users are placed into a same group,".

Fisher fails to teach forming groups from automatically discovered patterns. By contrast Fisher forms groups based on a predefined criterion which he has used to define the ready made pools. The criterion of Fisher does not provide at least two links to common resources. As seen in paragraph 053 of Fisher, members are grouped depending in whether they have one or more resources included in a predetermined grouping "homogenous set of values" and not on the basis of whether they *have* more than one resource in common. As shown in paragraph 53 of Fisher, the members of the group are resources themselves and thus do not share any resources.

Claim 25 likewise teaches "automatically discovering existing relationship patterns within said arrangement", which contrasts with Fisher which does not discover any such patterns. Claim 25 further teaches "using said discovered patterns, grouping said nodes...". As explained Fisher does not discover patterns within the data structure and

therefore he cannot use such a discovery to form groups. Rather he uses pool pre-definitions to form his groups.

Claim 26 as amended teaches:

"automatically discovering relationship patterns within said existing relationships using pattern recognition on said nodes, said resources and said predetermined relationships" and using "said relationship patterns to form groups from said nodes". Fisher neither teaches discovering relationship patterns nor using such discovered relationship patterns to form groups. Rather, as explained above he assigns attributes or resources in real time and pools together those users having an attribute or resource that is part of the attributes or resources predefined for the group.

Claim 27 as amended teaches

"a pattern recognition unit operable with said processor for automatically recognizing pre-existing patterns in said access data, said patterns indicative of a way of grouping said nodes so as to discover groups of nodes having common subsets of resources, ...

Fisher does not teach patterns, certainly not recognition of patterns and certainly not use of these patterns to discover groups of nodes that exist within the data set.

On the contrary, in the passage pointed to by the Examiner, Fisher merely *retains* in a group together those users who have been given a resource that is part of the definition of the pre-defined group. Fisher teaches *retaining* and not *discovering*. Fisher does not *use patterns*, and does not *recognize* patterns. He merely keeps together those users he has just assigned a resource included in the basket of resources of the group. No groupings of common links are used or even needed for the groupings of Fisher. Therefore claim 27 does not read on Fisher even if Fisher is read in the broadest possible way. Certainly if Fisher is read in the broadest reasonable way then no anticipation can be found.

In view of the Examiner's repeated rejections of an apparatus for pattern matching in light of a citation that does not even *mention* either patterns or matching, claim 27 positively recites the term "pattern matching" and positively recites the role of pattern matching in grouping the nodes. Fisher merely retains in a group those users it has just given a certain resource to. There is no discovery, no recognition and no use of patterns to decide on the grouping.

The earlier independent claims, referred to above, do not claim a pattern matching unit, but refer to discovery of the groups within the input arrangement of nodes and resources. Again Fisher does not teach discovery of groupings but rather teaches retaining users within groups according to the resource or resources just defined, as explained above.

General Comments on the Examiner's Findings.

Examiner points to Fisher paragraphs 0056 – 0060, as teaching a pattern recognition and node-grouping unit. These paragraphs merely state that there are pools and that pools are defined *according* to resources. There is no hint in these paragraphs as to how the pools should be populated, whether by search or by adding users as resources are given out or by any other method. There is certainly no hint at using patterns and no hint of any kind of recognition, certainly no hint of pattern recognition, in order to populate the pools.

In fact, the method of populating the pools is taught in paragraphs 63 and 64, to which the Examiner does not refer. Here it is very clear how the pools are populated and it is quite clearly *not* by pattern recognition or by patterns or by anything to do with searching. The pools are predefined, or populated incrementally – that is one by one as users adopt certain attributes or take certain resources. There is *no search* and therefore not only is there *no use of patterns*, but no call for the use of patterns.

Therefore the Examiner's finding that paragraphs 0056 - 0060 of Fisher teach *pattern recognition* for *grouping* of nodes according to *discovery of patterns* is not implicit or explicit in what is cited and is certainly not supported by the reference as a whole.} The more relevant passages 0063 and 0064 do not teach this and make clear that the Examiner's interpretation is not what is taught.

Fisher fails to teach an input for receiving users and resources with predetermined relationships therebetween, contrary to the teachings of claims 25 and 26. In this regard the Examiner has pointed to Fisher paragraphs 0044, 0046, 0053, and 0055. However these passages teach *allocating* resources for end users. If the resources are allocated they *cannot* be predetermined. While it is appreciated that the Examiner is supposed to take the broadest reasonable interpretation of the wording of the claim, it is respectfully

submitted that if allocation is carried out then the relationships cannot be predetermined. "Predetermined" is a word featured in the claim and having a meaning and should be construed as part of any broadest reasonable interpretation. It is not at present understood how any construction taking into account the claimed term "predetermined can read on to Fisher who assigns his resources.

New claim 30 provides is a system for searching a partitioned dataset having existing but currently unknown structure. Nothing is assigned and no changes are made to the dataset. As mentioned, the nodes of the first partition are users of a network and nodes of the second partition are resources on the network. The apparatus then groups users according to a search, for example based on the relationship patterns discovered above, which may then be assumed to correspond to users' roles in the organization. Thus all the engineers in the organization may be identified by their common access to certain resources, and the senior engineers may be identified by higher level access to the same resources. The same applies for accounts staff and the senior accountants.

One possible application is to provide updated corporate tree information as required. Generally as people change their positions in a corporate tree their computer status is updated quickly but the company literature is updated more slowly. Such an application provides a way to overcome this time lag.

Fisher et al., as mentioned above, teaches a resource allocation mechanism. More particularly Fisher et al discloses a method and system for improving network management in a data communication network by defining one or more pools of network resources and having the resources automatically allocated, listed and checked for uniqueness. As explained above there is *no predefined relationship between nodes*, from which it follows that there can be no attempt to *discover patterns in these predefined relationships*.

New claim 28 is added to further define a feature of claim 1, namely that "said role comprises said users or said resources sharing only said subset".

News claim 29 – 31, 34, and 35 are independent claims, added to additionally define the present invention. Claims 32 and 33 are new dependent claims.

No new subject matter is added by the present amendments.

All of the matters raised by the Examiner have been dealt with and are believed to have been overcome. In view of the foregoing, it is respectfully submitted that all the claims now pending in the application are allowable. An early Notice of Allowance is therefore respectfully requested.

Respectfully submitted,

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Enclosed:
Petition for Extension (3 Months);
Additional Claim Transmittal.